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THE WRONGS AND OPPORTUNITIES IN MINING INVESTMENTS

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Because mining is so good, and so profitable, there are many who by deceiving seek gain unworthily; because righteousness is so good, and so desirable, there are many who by hypocrisy make false pretense; yet because of the hypocrites we do not turn from religious sentiments, and neither should we, because of the deceivers, condemn mining. The evils which have developed in mining investments are not because such investments are bad, but because they are so good that those who seek to gain by deception find in mining stocks a convenient medium for their operations. It is probable that greater loss follows the promiscuous use of capital in mining transactions than in any other form of investment, excepting only speculation on margin, though such dealings should perhaps be classed as gambling, and given no consideration among investments. If margin speculation is not to be considered as having a place among investments, then mining shares are the most uncertain. Yet among all investments, not anywhere are such profits obtained as in successful mining.

Here we have a series of anomalies, the best, and the worst in sharp contrast; and our object will be to consider these contrasting situations in an endeavor to find, if it may be, some basis on which to construct an outline for a better understanding of the advantages and disadvantages of mining investments. In considering our subject, losses must be noted in a great majority of instances, and these losses, while referable to numerous adversities, may be traced to three distinct influences: One, questionable practices on the part of some mining engineers and mining geologists; another, inefficiency, and often absolute dishonesty on the part of those who are officers, and managers in a mining corporation; and, finally, the most potent of all, lack of funds to carry the enterprise to a successful termination.

In taking up the consideration of these fundamental causes out
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of which adverse conditions are developed to the detriment of mining investments, it is reasonable to criticize practices which are far too common among a certain class of mining engineers, and geologists. We claim in the profession to be a very virtuous lot of men, yet on the average, I suppose, we are no better, neither are we worse, than the ordinary run of humanity. Often a mining engineer, or mining geologist will want business; perhaps to obtain work will be an urgent necessity, and under the stress of such circumstances, how easy it is to make a low estimate of costs, and encourage people to undertake a mining venture. The engineer who estimates the cost of a railway section, or a bridge, or the architect who makes his specifications for a building must be exact, and accuracy is expected; but in mining there is always an element of uncertainty, and this affords a convenient excuse, if one wishes to take such an advantage. The mining engineer, or the mining geologist, was not dealing with known conditions, always an excuse can be found, and the temptations to underestimate the cost of mining are ever present. Low prospective costs, and exaggerated expectations, have started many a mining enterprise on a series of adversities. Excuses are plenty, worse things are constantly done in ordinary business; a little encouragement to get the people in, that work may be started, they will put up some money later rather than lose the investment; people are always slow to rule on a bad account; if they were told all at the start, they might not take the proposition, and the mining man wants employment. He assures himself that the mine will make handsome profits in the end; it is only good business to get the work started; the people will make money enough after a time when the mine is developed, though they may be kept on the anxious seat for quite a period. Where an engineer has once surrendered to the temptation, and obtains business by underestimating costs, and exaggerating expectations, worse acts usually follow. When I was a very young man, I had a call to some work on a proposition where the engineers had underestimated, yet in spite of this the enterprise was well accredited, and prominently before the public. The work I had was of minor importance, part of my duties relating to supplies, and I promptly expressed my disapproval of the operations. Prices were entered on the vouchers at considerably higher rates than actual cost, and a surplus of material was always called for in the

daily requirements, but if supplies were left over they were used the next day though the full daily allowance was entered on the vouchers as new material required. All the allowances were liberal, there was a good saving for somebody, and it was not for the mine account. I protested against this kind of work, and resigned my appointment. It might be more correct to say that I was fired, and told to go home to my mother, that I would never make any money at mining. In this I am happy to say that those who were in charge of the proposition were decidedly in error. Another thing is very certain, the enterprise on which they were engaged was a disastrous failure. I heard later that they had saved something like a hundred and fifty thousand dollars before the stockholders grew tired of putting up more money on estimates which were far from adequate.

This is an aggravated case of real dishonesty on the part of men who did not profit in the end, and were finally ordered out of one prominent banking house, and were almost bodily kicked out of another. Being men of extravagant tastes, they were out of money after a time, and since then have not been of much use to themselves or anybody else. It gives me some satisfaction to state that these men were of the persuasive variety among mining engineers, the self-dubbed knights and chevaliers of the profession, who assumed the name, but had no real authority for the distinction of mining engineer. Let no one suppose from this that a mining engineer, or a mining geologist cannot be self-made. Many of our best men have worked their way by hard, faithful application, and by their labor have reached positions of responsibility because of the excellence of their work. Such engineers are often eminent in their superiority over others who have had the advantages of early technical training.

The results which follow an estimate made too favorable by a mining engineer anxious to obtain work can be readily understood. The engineer is given employment, and in time, probably before very long, more money is required, urgently needed in fact, for without it work must be stopped and all the investment lost. Appeals are made to the stockholders, but those who have purchased the shares will, under such circumstances, become suspicious, and most do not respond; the enterprise flounders along for a time, and then as a usual result collapses, and the investors have lost their money. The

mine may have been good, but the necessary work to secure returns could not be completed, and the effort ended in disaster. Such failures are all too frequent; and here the investor in mining stocks finds one of his greatest difficulties because it is hard to judge the worth and accuracy of an estimate made by a mining engineer, or a mining geologist. One thing an investor can do, look up the record of the man who makes the report and estimate. If he has been connected with successful mines, and if he has kept his clients out of unsuccessful ventures, he is a good man to follow; but if his work has been in error, and his estimates inaccurate for others, though he is ever so learned, it might be well to have a care in risking money on his recommendations.

In considering a mining proposition, it should be remembered that in every instance the reports of men skilled in three distinct branches of the profession are desirable; and that to become a master of more than one distinct branch of a profession in these days of amplification, and detail, would seem a heavy burden for a single life. Yet in many instances, mining engineers attempt to be geologists, chemists, and engineers all in one, though the requirements for each subject are technical, and necessitate different work in training and thought, in order to attain proficiency. It is probable that the multiplicity of subjects, and consequent variations of detail with which the mining engineer attempts to deal, cause many an unfortunate, but honest inaccuracy in estimating the costs to be incurred in order to obtain results from a mining property. The geologist requires years of study, and field observation to attain proficiency; the chemist and metallurgist must give long attention to patient study, and experiment, in order to accurately prescribe the treatment an ore may require, and the engineer must work, and study the problems of construction, maintenance, and practical mechanics before he can, with assurance of good results, design, and operate the equipment and machinery which a mine may require. It would be a rare genius indeed who could combine all these technical branches of the mining profession in the operations of one person. Many attempt it, but few succeed, and in most instances the mines they endeavor to operate are dismal failures, for always some unexpected or unforeseen condition develops which prevents success. The engineer makes excuses, but the fact

is he did not know what he was about, having attempted too much, and disaster is the natural result.

It is correct to state that the best and most successful mine operators and companies maintain technical men in the three departments. The mining geologist explores, opens the mine, and exposes the ore bodies; the chemist and metallurgist tests the ores, and prescribes the treatment which will result in the best returns. These two having finished their work, the mine is turned over to the mining engineer, who designs his machinery, and equipment, to meet the conditions which have been proven, establishes the construction, and operates the property; calling on the mining geologist, when required, to trace out and uncover the ore bodies; and on the mining chemist to ascertain from time to time whether changes have developed in the character of the ore which requires modifications in its treatment in order to obtain the best results. Under such careful operations, a mine will not be worked to disadvantage; neither will operations be started, or work maintained, under conditions which are not favorable.

I have frequently been asked by students which branch of technical mining work will probably result in continued profitable employment. I have always advised the mechanical work. A mine is examined, the ore bodies opened and the kind of treatment prescribed once, in most propositions; but the property will be worked three hundred and sixty-five days in the year, and in many instances during the nights as well; as a consequence the mechanical and engineering requirements for the work cause a greater demand, and offer greater opportunities, for steady and profitable employment.

To the person who invests in mining stocks the question of whether efficiency is shown by the organization soliciting the use of his money, is of great importance. Fortunately this question is not difficult of solution. If the efficiency is good the corporation will be able to refer to technical men of standing who will regularly report the progress of the work. If a mining enterprise asks for support, and cannot give proof that its work is on an efficient basis, through the reports of technically trained men, one good reason is developed which should be sufficient warning against the proposition. The merest bungler may have luck in a mining venture, yet it is well to remember the technicalities of mining, and not trust

to luck, for luck is a fickle guide leading, with rare exceptions, to nothing but disaster and ruin.

We have considered questionable acts on the part of professional men, and lack of skill at the disposition of those who conduct mining enterprises: these are potent influences leading to disaster in mining operations; but there is another, and more disastrous cause which leads to loss, and this is the lack of funds to carry an enterprise to success, so palpably evident in the great majority of mining propositions asking investors for the use of their money. Where funds are lacking losses result, not because the mine lacked merit, but because money was not obtained in sufficient amount to carry the proposed operations to a successful termination. In almost every instance, where shares are offered for sale, the lack of funds is demonstrated because the offerings of shares are made coupled with the statement that treasury stock is being sold to provide a mill, to develop the mine or for some other purpose. Details vary, but the basis of the proposition is always the same, sales of stock are to provide the funds to make the mine profitable. In such offerings, two conditions are self-evident; one that the mine as it stands is not productive, the other that except sufficient shares are sold it cannot become productive. In such propositions the investor is invited to participate in all the risks of mining, coupled with the uncertainties of raising money; certainly not a very favorable proposition. It is more unfavorable, than will appear when first considered, because of the fact that mining stocks are very difficult to sell, and that most stock selling propositions are forced to meet their general expenses out of the proceeds of the sales of the shares which are being offered. Usually returns do not come in rapidly enough to meet these requirements, and provide the money needed to work the mines, and this being the case, the purchaser of a mining stock is not putting money in a mine, he is simply providing funds to maintain the stock selling end of the proposition. The managers of such enterprises are prone to state in their offerings that they do not receive salaries, but they do have expense accounts, and these amount to the same thing, in fact they usually amount to a little more.

No investor should be caught in this game. Where a proposition offering shares betrays its financial weakness by stating that the officers are philanthropic, doing their work

for nothing, and that the corporation is offering shares to provide the means for developing work which those principally interested in the company are not financially able to do for themselves, then the investor should remember that the chances that the financially weak men will ever obtain the money they seek by stock selling are so remote that the prospect is poor indeed; and most probably the improvements will never be secured, because the money given for shares will go into the expense account to gradually disappear in expenditures for the maintenance of those who manage the proposition. Such a game can be worked for some time, the managers live, and get along; but the money comes in too slowly, in the vast majority of instances, to provide for more than the expenses of the executive side of the corporation. Under such circumstances the proposition can result only in loss for those who may invest, and when an offering of this kind is presented, investigation from an investor seems scarcely necessary, the disadvantages are self-evident. If investigations are undertaken, in regard to philanthropic propositions so frequently offered in which those who manage give their services without compensation, the investor might well ask what proportion of the prospective product of the mine is represented by the shares offered for sale. If the stock book were examined, it would, in most instances, be found that only from ten to twenty-five per cent of the shares are available for sale, and that these shares must provide all the money to operate the mine, the promoters and managers taking the balance. On this basis the count is, one for you the investors, and three up to nine for us the managers and promoters—not a very fair proposition, and one which investors can most assuredly let alone, and in which they find it an advantage not to have participated.

It would seem that all the influences of questionable financiering had settled as a blight over mining enterprises, yet always there is a restless energy manifesting itself in the eager search for mines, and the desire on the part of many persons to participate in mining enterprises. It is unquestionably an advantage to civilization that this is the case, for we could not exist without the products of the mines. Coal for our fires; iron, copper, and other metals for utensils and machinery; oil to light our lamps, materials for construction, and gold to supply a medium by means of which the complicated relations of commerce can be sustained—all of these we must

have, or our civilization will cease to exist; and perhaps it is well that we risk and dare so much in mining ventures, for were it otherwise it might be that the mines would remain unoperated.

It is not mining, but the abuses of mining which are worthy of public censure. To sell mining shares is right and proper; he who succeeds in establishing a mine is a public benefactor; and there are many mining enterprises so organized that they are worthy of all praise. Especially is this true of mining propositions put forward on a subscription basis, with nothing to be paid until enough money is subscribed, and pledged, to carry out the specifications of competent engineers. Such subscriptions offered for a mine which has been examined by a suitably qualified mining geologist, are in every way desirable, and participation can be taken with confidence; though the investor should always remember that even where the greatest skill is exercised, mining can never be entirely free from risk and the vicissitudes of unknown conditions, consequently no one should, under any circumstances, put money in a mining venture which is essential to him. Money which represents conveniences can be risked, money which is required for essentials should never be put at hazard; and mining is, and always will be, a risk. That it is a popular risk is proven by the diversity of contrasting human influences with which it is involved. We find the multi-millionaire rich from the product of his mines, and the ruined prospector begging for a little money with which to sustain life, while he once more goes in search of a mining prize. We find the respected bankers and brokers of the great stock exchanges trading in shares of mighty combinations of mines, and in the same cities questionable promoters, and stock sellers, offering doubtful shares in propositions of elusive promises. We find also esteemed professors, eminent geologists, and noted mining engineers, in sharp contrast with dishonest graduates, underestimating to obtain a job, and grafting to secure profits; and the so-called mining experts, picturesque men who do their mining in bar rooms and hotel corridors; and the adventurers claiming knowledge unworthily with glib pretense in order to obtain money on propositions where no values exist.

This is mining, the daring, the enthralling; where in varying results examples are found of affluence and starvation; achievement, and failure; honors, and crimes—all struggling and

striving together; and the prize is wealth, glittering magnificent wealth. Is it any wonder that people buy mining stocks? Consider a moment how great is the incentive. Most men in ordinary circumstances will die under the yoke of their occupations, or will reach a time when, after a life of labor which has produced only enough for a decent maintenance, they can work no more, and must become charges on the indulgences of others. Thus in most lives it must be, because in these days of competition, exactions, and high costs few men can earn and save a competency. Under such circumstances, the chances of mining where a little placed at risk can produce, and frequently has produced, a competency, must always be alluring. The opportunity is real, a little money is risked for the chance of obtaining so great a prize, and it is reasonable and right that the risk should be taken; but not in response to seductive enticings from designing men. The risk should be judiciously taken, with the full knowledge that an element of chance must attend all mining ventures, and that nothing should be placed at hazard, excepting such amounts as can be lost without disaster. Before taking the risks one should require to be shown proofs that the proposition is in capable and honest hands.

To give such proofs adequately the mine must be reported on, and recommended as desirable by a competent mining geologist. The prospectus must show plans and specifications by a competent mining engineer, stating what amounts are required for improvements in order to obtain results, and his record must show that he has been correct in previous estimates. Those who are to manage the enterprise must show that they have at their command reliable men possessing technical skill, and finally the most important of all, those who are interested in the enterprise must be able to show that they who invest will be associated with men of sufficient wealth to carry the proposed operations to a conclusion; or they must demonstrate the validity of their proposition by asking only that money should be subscribed payable on condition that enough is pledged to operate the proposition, and bring the proposed work to a conclusion. Such conditions being demonstrated, and investors taking only the propositions offering suitable proofs, mining investments would tell an entirely different story. Yet losses would be made, for where a great profit is to be had there must be a corresponding risk; but in mining, if technical skill, honesty and sound financial

methods are made available to investors, the chances for success are much greater than are the chances of a failure. Yet, though theories may be advanced, and rules of procedure published, the wiles of those who seek to obtain money by questionable methods will always be an adverse influence among mining propositions; and it is a matter of grave concern that so many people should lose money.

So serious is this matter that it has received attention from our law-makers, and means have been provided in easy legal procedure to call to a judicial accounting any group of men who lose the money invested in a corporation which was under their management. To lose money in honest effort is no crime; and if only it were an established custom in our country to invoke the law, and require an accounting before the courts wherever money is lost in corporations, those who sell stocks, and manage enterprises dishonestly, would be more careful. To men who lose corporate money in honest effort the accounting would be a benefit through which they would be cleared of reproach; but if dishonesty, waste, or extravagance were shown, punishment would be meted out, and would be richly deserved. Investors would by taking stern measures, and by calling to account every corporate failure, render a service to their fellow citizens, to their country, and to themselves, because with a few examples of stern justice the whole fabric of misrepresentation would become too dangerous a proposition, and investors could make money through the purchases of stocks. It is to be feared, however, that American investors will remain submissive under loss. "Like lambs led to the slaughter," they will bleat a little over their misfortunes, but that is all. Promoters and stock manipulators will sneer derisively, and the game will go on. Mining stocks will probably continue the principal medium for seductive wooings to charm the dollars from needy pockets, and mining, one of the greatest, most essential, and most profitable among enterprises will still be spoken of as a reproach. This will not always be: people are becoming educated in finance, influences are abroad in our land through which mediums for instruction will be developed, we may be sure that a change is coming; and that presently, in matters relating to mining investments, the wrongs of the past will be righted in the opportunities and benefits of the future.